

**MARK-UP PAGES FOR THE AUGUST 14, 2001, AMENDMENT
TO U.S. PATENT APPLICATION SER. NO. 09/881,477**

Please replace claim 1 with the following amended version thereof:

- 1 1. (Amended) A flow through gas separator assembly, associated with a source of
2 fluid, comprising:
3 A) an inlet end, disposed to receive fluid from the fluid source; and
4 B) a conduit component coupled with said inlet end, for conveying the
5 fluid, said conduit component having walls comprised substantially of a porous,
6 hydrophobic material, that defines a tortuous path therethrough. [; and]
7 [C) and outlet end coupled with said conduit, said outlet end including
8 an end cap member having a flow limiting orifice that generates
9 back pressure within fluid traveling in said conduit in such a man-
10 ner that said fluid is pushed along said hydrophobic walls and into
11 said tortuous path whereby gases contained within said fluid are
12 separated out and released from said fluid.]

Please replace claim 2 with the following amended version thereof:

- 1 2. (Amended) The gas separator assembly as defined in claim 1 [wherein] further
2 comprising:
3 [said end cap of said outlet end is comprised substantially of a hydrophilic
4 material.] an outlet end coupled with said conduit, said outlet end
5 including an end cap member having a flow limiting orifice that
6 generates back pressure within fluid traveling in said conduit in
7 such a manner that said fluid is pushed along said hydrophobic
8 walls and into said tortuous path whereby gases contained within
9 said fluid are separated out and released from said fluid.]

Please replace claim 4 with the following amended version thereof:

- 1 4. (Amended) A gas separator assembly for use with a direct oxidation fuel cell
2 that includes a membrane electrode assembly having a protonically-conductive mem-
3 brane electrolyte, with a catalyst disposed [thereupon,] in proximity to the membrane
4 electrolyte, said membrane having an anode face and a cathode face, and an anode cham-
5 ber being defined within said cell contiguous to said anode and a cathode chamber being
6 defined within said cell contiguous to said cathode, and when a fuel is introduced into the
7 anode chamber, electricity-generating reactions occur in which anodically generated car-
8 bon dioxide, electrons and protons are produced and when supplied with oxygen,
9 cathodically-generated water is produced, the gas separator assembly, comprising:
10 (A) an inlet end coupled with said anode chamber to receive anode ef-
11 fluent including unreacted fuel and water and carbon dioxide; and
12 (B) a conduit component coupled with said inlet end [in to] into which
13 said anode effluent is conveyed, said conduit having walls comprised substan-
14 tially of a porous, hydrophobic material, and defining a tortuous path exiting said
15 conduit, whereby carbon dioxide is separated out from said anode effluent. [; and]
16 [(C) an outlet end having a cap member disposed within the outlet end
17 and said cap member having a flow limiting orifice to generate back pressure
18 within fluid in said conduit component, whereby anode effluent under back pres-
19 sure is pressed against the walls of said conduit and thereby into said tortuous
20 path, to separate out carbon dioxide gas from said anode effluent.]

Please replace claim 5 with the following amended version thereof:

- 1 5. (Amended) The gas separator assembly as defined in claim 4 [wherein] further
2 comprising:
3 [end cap of said outlet end is comprised substantially of a hydrophilic
4 material.] an outlet end having a cap member disposed within the outlet end and
5 said cap member having a flow limiting orifice to generate back pressure within

6 said anode effluent traveling in said conduit component, whereby anode effluent
7 under back pressure is pushed against the walls of said conduit and thereby into
8 said tortuous path, to separate out carbon dioxide gas from said anode effluent.

Please replace claim 7 with the following amended version thereof:

1 7. (Amended) The gas separator assembly as defined in claim 4 wherein
2 said conduit component is U-shaped, whereby carbon dioxide is separated from
3 said anode effluent regardless of orientation of said assembly.

Please replace claim 8 with the following amended version thereof:

1 8. (Amended) The gas separator assembly as defined in claim 4 wherein
2 said conduit component has a bend in it such that it is formed to be coupled with
3 said anode chamber, whereby carbon dioxide is separated from said anode effluent re-
4 gardless of orientation of said assembly.

Please replace claim 9 with the following amended version thereof:

1 9. (Amended) The gas separator assembly as defined in claim 4 wherein
2 said conduit component is coiled, whereby carbon dioxide is separated from said
3 anode effluent regardless of orientation of said assembly.

Please replace claim 10 with the following amended version thereof:

1 10. (Amended) The gas separator assembly as defined in claim 4 wherein
2 said outlet end is tapered to form a cone-like shape, whereby carbon dioxide is
3 separated from said anode effluent regardless of orientation of said assembly.

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Please replace claim 11 with the following amended version thereof:

- 1 11. (Amended) The gas separator assembly as defined in claim 5 further compris-
2 ing
3 at least one of a T-junction fitting and a tube-in-tube fitting coupled to said con-
4 duit component to capture said carbon dioxide separated from said anode effluent.

Please replace claim 13 with the following amended version thereof:

- 1 13. (Amended) The gas separator assembly as defined in claim 5 further compris-
2 ing
3 a [catalyst-coated screen] catalyst applied to the exterior aspect of the gas separa-
4 tor assembly for oxidizing any methanol vapor that is separated out of said anode
5 effluent with said carbon dioxide.

Please replace claim 14 with the following amended version thereof:

14. (Amended) The gas separator assembly as defined in claim 4 wherein

the gas separator assembly is comprised of a plurality of fuel cells, each fuel cell
having a membrane electrode assembly, and wherein said plurality of fuel cells are con-
nected in [said fuel cell is of] a planar design.

Please replace claim 15 with the following amended version thereof:

15. (Amended) The gas separator assembly as defined in claim 4 wherein

the gas separator assembly is comprised of a plurality of fuel cells, each fuel cell having a membrane electrode assembly, and wherein said plurality of fuel cells are connected in [said fuel cell is of] a stacked design.

Please add the following new claim 22:

1 22. (New) The gas separator assembly as defined in claim 2 wherein
2 said end cap of said outlet end is comprised substantially of a hydrophilic mate-
3 rial.

Please add the following new claim 23:

1 23. (New) The gas separator assembly as defined in claim 5 wherein said end cap of
2 said outlet end is comprised substantially of a hydrophilic material.